

**Explore and Evaluate Alternative Methods to
Increase Freshwater to the Nueces Delta
TWDB Contract 1600012016**

Purpose: Identify ways to provide freshwater to the Nueces Delta and evaluate the feasibility of those alternatives

- Focus on identifying alternatives
- Will not emphasize detailed, in-depth, analysis of alternatives

Sample alternatives:

- Modify the Rincon Bayou Pipeline permit to pump water from the Nueces River into the South Lake area of the Nueces Delta,
- Address regulatory obstacles to cost-effectively modify the Allison Wastewater Treatment Plant permit to allow discharge of treated effluent to the Nueces Delta,
- Increase the volume of Nueces River water that can be pumped into Rincon Bayou from the existing pump station,
- Shift wastewater treatment plant return flows from the Oso Creek/Oso Bay watershed to Rincon Bayou.
- Supplement flows to Delta with brackish groundwater

Information (if available) compiled for each alternative:

- a. Source of water (location, owner, etc.)
- b. Amount of water that might be provided
- c. When water could be provided (frequency, season)
- d. Potential point(s) of addition to the Delta
- e. Conceptual opinions of cost of obtaining the water
- f. Conceptual opinions of cost of providing the water to the Delta
- g. Potential physical, chemical, biological effects of removing the water from the source
- h. Potential physical, chemical, biological effects of adding water to the Delta
- i. Permits required to implement the alternative, and
- j. Time required to complete requirements (feasibility analysis, permitting, infrastructure completion).

Final product: Report containing list of alternatives and information gathered about each alternative

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Literature (TWDB and others): Please contact us if you have other literature suggestions

Contract Number	Report Title	Date
<u>1548311787</u>	Determining Optimal Pumped Flows to Nueces Delta	2016
<u>1400011717</u>	Using Landform and Hydraulic Modifications to Increase the Benefit of Fresh Water Inflows to Nueces Bay and Nueces Delta	2016
<u>1400011719</u>	Modeling Salinity Fluxes in the Nueces Delta	2015
<u>1400011718</u>	Nueces BBASC Work Plan Study No. 3 Nueces Watershed Pre- and Post-Development Nutrient Budgets	2015
<u>1400011716</u>	Nueces BBASC Work Plan Study No. 1 Re-Examination of the 2001 Agreed Order Monthly Targets and Safe Yield Verses Current Demand Evaluations	2015
<u>1100011289</u>	Instream Flow-Habitat Relationships in the Nueces River Basin	2011
<u>2003483001</u>	Quantification of Terrestrial and Marine Sediment Sources to a Managed Fluvial, Deltaic and Estuarine System: The Nueces-Corpus Christi Estuary, Texas.	2005
<u>95483075</u>	Determining Recent Sedimentation Rates of the Nueces River System, TX	1996
<u>92483313</u>	Regional Wastewater Planning Study Phase II Nueces Estuary	1993
<u>91483793</u>	Nueces Basin Water Supply Study Phase II Conditional Probability Modeling	1993
<u>91483586</u>	Nueces River Basin Regional Water Supply Planning Study Phase III - Recharge Enhancement	1991
<u>90483772</u>	Regional Water Supply Planning Study Phase I Nueces River Basin	1991
<u>8483607&9483705</u>	Nitrogen Processes Study: Nutrient Distributions and Dynamics in Lavaca, San Antonio, and Nueces/Corpus Christi Bays in relation to Freshwater Inflow	1989
<u>5551001</u>	Drainage Criteria and Design Manual Nueces County, TX	1986
<u>5551001</u>	Nueces County Stormwater Management Master Plan	1986
	Bureau of Reclamation. 2000. Concluding Report: Rincon Bayou Demonstration Project. United States Department of Interior, Bureau of Reclamation. Oklahoma-Texas Area Office, Austin, TX. 304 pp.	2000

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